

EXHIBIT 1



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/648,055	12/28/2009	Heidrun Grob-Lipski	LUTZ 201090US01	3073
48116	7590	10/24/2011	EXAMINER	
FAY SHARPE/LUCENT 1228 Euclid Avenue, 5th Floor The Halle Building Cleveland, OH 44115-1843				VU, MICHAEL T
2617		ART UNIT		PAPER NUMBER
10/24/2011		MAIL DATE		DELIVERY MODE
				PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	12/648,055	GROB-LIPSKI ET AL.	
	Examiner	Art Unit	
	MICHAEL VU	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 December 2009.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) Claim(s) 1-15 is/are pending in the application.
 - 5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) Claim(s) _____ is/are allowed.
- 7) Claim(s) 1-10, 14 and 15 is/are rejected.
- 8) Claim(s) 11-13 is/are objected to.
- 9) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 10) The specification is objected to by the Examiner.
- 11) The drawing(s) filed on 28 December 2009 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

Application/Control Number: 12/648,055
Art Unit: 2617

Page 2

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12/28/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-10, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narasimha et al (US 2008/0268850) in view of Kim et al (US 7,818,006).**

Regarding claim 1, Narasimha teaches a handover method in a base station of a mobile communication system (Narasimha: Fig. 3 shows handover method), said mobile communication system further comprising a plurality of base stations (Narasimha: Fig. 3 shows plurality of base stations/nodes #120 & 130), a telecommunication link being established between a user equipment and said base station (Narasimha: Fig. 3 shows the connection between UE #110 and base station #120), the method comprising:

Application/Control Number: 12/648,055
Art Unit: 2617

Page 3

receiving a first measurement report from said user equipment via said telecommunication link (Narasimha: Fig. 3 shows a base station received measurement report from UE), said first measurement report containing an evaluation of signal quality from **at least one** candidate base station of said plurality of base stations for a handover (Narasimha: Fig. 3 shows that the base stations received a better signal, [0041]);

selecting a first candidate base station using said evaluation of said signal quality from said first measurement report (Narasimha: Fig. 3 shows evaluated signal between UE #110 and a base station #120 or a first base station);

initiating a first handover preparation by transmitting a first request to said first candidate base station (Narasimha: Fig. 3 shows handover preparation);

determining if said first handover preparation has failed (Narasimha: Figs. 3-4 show handover preparation);

selecting a set of candidate base stations including at least some of said candidate base stations identified in said first measurement report (Narasimha: Figs. 3-4 show candidate base station and send a measurement report to the source base station #120, [0031]);

Narasimha does not explicitly teach initiating a second handover preparation by transmitting a second handover request to at least one of said set of candidate base stations, if said first handover preparation has failed;

selecting a target base station from said set of candidate base stations, if said second handover preparation has not failed;

Application/Control Number: 12/648,055
Art Unit: 2617

Page 4

initiating said handover of said user equipment from said base station to said target base station; wherein said first and said second request are indicative of a set of radio bearers used by said user equipment.

Kim, in the same field of endeavor, teaches initiating a second handover preparation by transmitting a second handover request to at least one of said set of candidate base stations (Kim discloses handover process selected target base station, Col. 5 lines 30-57), if said first handover preparation has failed (Kim discloses handover fails with the selected the second/target base station, Col. 5 lines 30-57 and handover failure of Fig.6);

selecting a target base station from said set of candidate base stations (Kim: Fig. 6 shows selecting a target base station), if said second handover preparation has not failed (Kim: Fig. 6 shows the handover response means not failed);

initiating said handover of said user equipment from said base station to said target base station (Kim: Fig. 6 shows selecting a target base station); wherein said first and said second request are indicative of a set of radio bearers used by said user equipment (Kim: Fig. 6 shows the first base target base station #63 and the second target base station #64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Narasimha to implement the handover execution in a wireless access system based on the channel quality information acquired in the handover processing and selecting the target base station if the handover failed as taught by Kim. One would be motivated to do so to provide an

Application/Control Number: 12/648,055
Art Unit: 2617

Page 5

efficiently resuming communication in a wireless access system in case of a handover failure for a better quality of service and capable of being handled by the candidate target base station Kim, page 5, lines 31-40).

Regarding claim 2, Narasimha and Kim teach the method of claim 1, Narasimha does not clearly teach wherein said first handover preparation has failed, if a failure message is received from said first candidate base station **or** if a first predefined time has expired since the transmission of said first handover request.

Kim, in the same field of endeavor, teaches wherein said first handover preparation has failed (Kim: Fig. 3 shows handover failure), if a failure message is received from said first candidate base station (Kim discloses the response message, Col. 7 lines 43-67) **or** if a first predefined time has expired since the transmission of said first handover request (Kim discloses predetermined time, Col. 9 lines 1-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Narasimha to implement the handover execution in a wireless access system based on the channel quality information acquired in the handover processing and selecting the target base station if the handover failed as taught by Kim. One would be motivated to do so to provide an efficiently resuming communication in a wireless access system in case of a handover failure for a better quality of service and capable of being handled by the candidate target base station Kim, page 5, lines 31-40).

Application/Control Number: 12/648,055
Art Unit: 2617

Page 6

Regarding claim 3, Narasimha and Kim teach the method of claim 1, Narasimh further teaches wherein a second measurement report is received from said user equipment (Narasimha discloses acknowledgement to the measurement report, [0009], [0024], and [0061]), said second measurement report containing a second evaluation of signal quality of **at least one** candidate base stations (Narasimha discloses multiple candidate target base stations, [0061]) wherein said set of candidate base stations for said second handover preparation includes **at least one of** said candidate base stations identified in said second measurement report (Narasimha discloses identified measurement, [0018]).

Regarding claim 4, Narasimha and Kim teach the method of claim 1, Narasimh further teaches wherein said set of candidate base stations for said second handover preparation includes **at least one** candidate base station selected using statistics data collected from previous handover preparations related to said base station (Narasimha discloses received measurement report from the base stations, [0009], and [0018-0019]).

Regarding claim 5, Narasimha and Kim teach the method of claim 4, Narasimh does not clearly teach wherein said target base station is a candidate base station indicated in said statistics data with a highest percentage of previous successful handovers.

Application/Control Number: 12/648,055
Art Unit: 2617

Page 7

Kim, in the same field of endeavor, teaches wherein said target base station is a candidate base station indicated in said statistics data with a highest percentage of previous successful handovers (Kim discloses based on signal qualities, Col. 3 lines 11-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Narasimha to implement the handover execution in a wireless access system based on the channel quality information acquired in the handover processing and selecting the target base station if the handover failed as taught by Kim. One would be motivated to do so to provide an efficiently resuming communication in a wireless access system in case of a handover failure for a better quality of service and capable of being handled by the candidate target base station Kim, page 5, lines 31-40).

Regarding claim 6, Narasimha and Kim teach the method of claim 1, Narasimh does not clearly teach wherein a third measurement report is received from said user equipment before said hand over is initiated, the method further comprising: sending a third handover preparation to at least an alternative candidate base station from said third measurement report.

Kim, in the same field of endeavor, teaches wherein a third measurement report is received from said user equipment before said hand over is initiated, the method further comprising: sending a third handover preparation to at least an alternative

Application/Control Number: 12/648,055
Art Unit: 2617

Page 8

candidate base station from said third measurement report (Kim: Fig. 6 shows requested handover from different base stations).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Narasimha to implement the handover execution in a wireless access system based on the channel quality information acquired in the handover processing and selecting the target base station if the handover failed as taught by Kim. One would be motivated to do so to provide an efficiently resuming communication in a wireless access system in case of a handover failure for a better quality of service and capable of being handled by the candidate target base station Kim, page 5, lines 31-40).

Regarding claim 7, Narasimha and Kim teach the method of claim 1, Narasimh does not clearly teach wherein the target base station is selected after reception of a first handover acknowledgement message from said target base station by said base station, wherein said second handover preparation has not failed if at least said first handover acknowledgement message is received by said base station.

Kim, in the same field of endeavor, teaches wherein the target base station is selected after reception of a first handover acknowledgement message from said target base station by said base station (Kim discloses acknowledgement information, Col. 9 lines 31-48), wherein said second handover preparation has not failed if at least said first handover acknowledgement message is received by said base station (Kim discloses acknowledgement information, Col. 9 lines 31-48).

Application/Control Number: 12/648,055
Art Unit: 2617

Page 9

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Narasimha to implement the handover execution in a wireless access system based on the channel quality information acquired in the handover processing and selecting the target base station if the handover failed as taught by Kim. One would be motivated to do so to provide an efficiently resuming communication in a wireless access system in case of a handover failure for a better quality of service and capable of being handled by the candidate target base station Kim, page 5, lines 31-40).

Regarding claim 8, Narasimha and Kim teach the method of claim 1, Narasimh further teaches wherein said target base station is selected from a subset of said set of candidate base stations (separate handover preparation, [0063]), Narasimh does not clearly teach wherein said subset of candidate base stations includes candidate base stations which have sent handover acknowledgement messages to said base station.

Kim, in the same field of endeavor, teaches wherein said subset of candidate base stations includes candidate base stations which have sent handover acknowledgement messages to said base station (Kim discloses acknowledgement information, Col. 9 lines 31-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Narasimha to implement the handover execution in a wireless access system based on the channel quality information acquired in the handover processing and selecting the target base station if

Application/Control Number: 12/648,055
Art Unit: 2617

Page 10

the handover failed as taught by Kim. One would be motivated to do so to provide an efficiently resuming communication in a wireless access system in case of a handover failure for a better quality of service and capable of being handled by the candidate target base station Kim, page 5, lines 31-40).

Regarding claim 9, Narasimha and Kim teach the method of claim 8, Narasimh further teaches wherein said target base station is selected from said subset of candidate base stations which has accepted supporting said set of radio bearers being used by said user equipment (Narasimha discloses separate handover preparation, [0063]).

Regarding claim 10, Narasimha and Kim teach the method of claim 8, Narasimh further teaches wherein said target base station is selected from said subset of candidate base station which have accepted supporting a maximum number of radio bearers from said set of radio bearers being used by said user equipment (Narasimha discloses separate handover preparation, [0063]).

Regarding claim 14, Narasimha and Kim teach the method of claim 1, Narasimh further teaches implemented in a base station being operable to perform the method (Narasimha: Figs. 3-4 shows the operating handover, and [0065]).

Application/Control Number: 12/648,055
Art Unit: 2617

Page 11

Regarding claim 15, Narasimha and Kim teach the method of claim 1, Narasimh further teaches implemented in a computer program product stored on a storage medium, comprising executable program means for causing a base station to perform the method when the program is run on the base station (Narasimha discloses implemented on a programmed processor, controllers, integrated circuit, and modules, [0065]).

Allowable Subject Matter

4. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL VU whose telephone number is (571)272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles N. Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 12/648,055
Art Unit: 2617

Page 12

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL T VU/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617